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ANTONELLI, TERRY, STOUT & KRAUS, LLP  
1300 NORTH SEVENTEENTH STREET  
SUITE 1800  
ARLINGTON, VA 22209-3873

EXAMINER

CHANG, SUNRAY

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/834,918

Applicant(s)

LE ET AL.

Examiner

Sunray Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This office action is in responsive to the paper filed on April 18<sup>th</sup>, 2005.
2. Claims 1 – 37 are presented for examination.  
Claims 1 – 37 are rejected.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 8 – 13, 20 – 25 and 33 – 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Jean Walrand (U.S. Patent No. 6,674,760, and referred to as Walrand hereinafter).**
4. **Regarding independent claims 1, 13, and 25, Walrand teaches,**

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- A method of classifying [classify, Col. 2, Line 28] Internet Protocol data [data stream, Col. 2, Line 28] to be sent from a source apparatus to a destination apparatus [end-to-end, Col. 2, Line 19] in a packet switch network [pocket-switch network, Col. 1, Line 11].
- Receiving data at a first node [the first accesses node in a sub-network that receives an IP packet, Col. 2, Line 33 – 34],
- the data comprising a header [IP header] comprising a list of at least one intermediate node to be visited on a way to the destination apparatus [connections]. [Abstract]
- Classifying [classifies] data at the first node [first accesses node] based on ~~source routing information of said data~~ an entry in said header [IP destination address, IP source address, and a class of service identifier]. [Col. 2, Line 34 – 36, see also Abstract]

Examiner further explains, the term, “an entry” in a header, has been defined in specification as “destination address field” [Page 8, Lines 1 – 2]

5. **Regarding dependent claims 8, 20, and 33, Walrand** teaches, data [IP packet, Col. 2, Line 34] is received at said first node [first accesses node, Col. 2, Line 33] from said source apparatus [source, Col. 2, Line 35].

6. **Regarding dependent claims 9, 21, and 34, Walrand** teaches, reserving [allocate] resources of nodes [resources] from said source apparatus to said destination apparatus [end-to-end connection]. [Col. 2, Line 36 – 38]

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7. **Regarding dependent claims 10, 22, and 35, Walrand** teaches, forwarding a request from source apparatus to first node [recognizes which end-to-end connection the packet belongs to, Col. 2, Line 36 – 37].

8. **Regarding dependent claims 11, 23, and 36, Walrand** teaches, storing source routing information at first node [first accesses node in a sub-network that receives an IP packet, Col. 2, Line 33 – 34].

9. **Regarding dependent claims 12, 24, and 37, Walrand** teaches, forwarding data from first node to a second node; and classifying said data at said second node based on ~~source routing information of said data~~ said entry in said header [IP destination address, IP source address, and a class of service identifier]. [Col. 2, Line 34 – 36, see also Abstract]

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. **Claims 2 – 4, 14 – 16, 26 – 28, and 29 are rejected** under 35 U.S.C. 103(a) as being unpatentable over **Walrand**, and in view of Jacob W. Jorgensen (U.S. Patent No. 6,452,915, and referred to as **Jorgensen** hereinafter).

(**Walrand** as set forth above generally discloses the basic inventions.)

11. **Regarding Claims 2, 14 and 26, Walrand** teaches, ~~source-routing-information~~ entry is provided within a ~~routing~~ header of said data [Col. 2, Line 34 – 36, see also Abstract].

**Walrand** does not teach, the data for IPv6.

**Jorgensen** teaches, IP of network layer can be Ipv4 or an IPv6, for the purpose of upgrading.

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Walrand** to include “the data for IPv6” for the purpose of upgrading.

12. **Regarding Claims 3, 15 and 27, Walrand** teaches, classifying is based on a destination address [Col. 2, Line 34 – 35] provided within ~~routing~~ header [Col. 2, Line 30, see also Col. 2, Line 34 – 36, see also Abstract].

13. **Regarding Claims 4, 16 and 28, Walrand teaches,**

- **routing** header [IP headers, Col. 2, Line 30] includes a segments left field [class of service identifier, Col. 2, Line 35 – 36], a first destination address field [IP source address, Col. 2, Line 35] and a last destination address field [IP destination address, Col. 2, Line 34 – 35].
- Classifying [classifies, Col. 2, Line 34] is based on information within last destination address field [IP destination address, Col. 2, Line 34 – 35] of **routing** header [Col. 2, Line 34 – 36, see also Abstract].

14. **Regarding Claim 29, Walrand teaches,** Classifying [classifies, Col. 2, Line 34] is based on information within last destination address field [IP destination address, Col. 2, Line 34 – 35] of **routing** header [IP headers, Col. 2, Line 30].

15. **Claims 5 – 7, 17 – 19, and 30 – 32 are rejected** under 35 U.S.C. 103(a) as being unpatentable over **Walrand**, and in view of **Jorgensen** as applied to claims **2 – 4, 14 – 16, 26 – 28, and 29** above, and further in view of Charles E. Narad (U.S. Patent No. 6,157,955, and referred to as **Narad** hereinafter).

16. **Regarding Claims 5, 17, and 30, Walrand teaches,** Receiving data at a first node [the first accesses node in a sub-network that receives an IP packet, Col. 2, Line 33 – 34], the data comprising a header comprising a list of at least one intermediate node to be visited on a way to the destination apparatus [Abstract]. Classifying [classifies] data at the first node [first accesses

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node] based on ~~source routing information of said data~~ an entry in said header [IP packet] [Col. 2, Line 34 – 36].

**Walrand** does not teach, said ~~source routing information~~ entry is provided within one of LSRR and SSRR of the data for IPv4.

**Jorgensen** teaches, IP of network layer can be Ipv4 or an IPv6.

**Narad** teaches, IP options in IP header [Col. 93, Line 43], header contain IP options [Col. 97, Line 39 – 41], and IP options, for example, LSRR, SSRR [Col. 96, Line 47 and 49]

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Walrand** to include “entry is provided within one of LSRR and SSRR, and the data for IPv4” for the purpose of using in different conditions.

17. **Regarding Claims 6, 18, and 31, Walrand** teaches, classifying is based on a destination address [Col. 2, Line 34 – 35] provided within ~~routing~~ header [Col. 2, Line 30].

**Walrand** does not teach, routing header with IP options like LSRR and SSRR, and the data for IPv4.

**Jorgensen** teaches, IP of network layer can be Ipv4 or an IPv6.



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**Narad** teaches, IP options in IP header [Col. 93, Line 43], header contain IP options [Col. 97, Line 39 – 41], and IP options, for example, LSRR, SSRR [Col. 96, Line 47 and 49]

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Walrand** to include "routing header with IP options like LSRR and SSRR, and the data for IPv4" for the purpose of using in different conditions.

18. **Regarding Claims 7, 19, and 32, Walrand** teaches,

- routing header [IP headers, Col. 2, Line 30] includes a segments left field [class of service identifier, Col. 2, Line 35 – 36], a first destination address field [IP source address, Col. 2, Line 35] and a last destination address field [IP destination address, Col. 2, Line 34 – 35].
- Classifying [classifies, Col. 2, Line 34] is based on information within last destination address field [IP destination address, Col. 2, Line 34 – 35] of routing header [IP headers, Col. 2, Line 30].

**Walrand** does not teach, routing header with IP options like LSRR and SSRR, and the data for IPv4.

**Jorgensen** teaches, IP of network layer can be Ipv4 or an IPv6.

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**Narad** teaches, IP options in IP header [Col. 93, Line 43], header contain IP options [Col. 97, Line 39 – 41], and IP options, for example, LSRR, SSRR [Col. 96, Line 47 and 49]

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Walrand** to include "routing header with IP options like LSRR and SSRR, and the data for IPv4" for the purpose of using in different conditions.

**Response to Amendment**

**Claim Rejections - 35 USC § 102 & 103**

19. Applicant argues that the combinations of references **Walrand**, **Jorgensen**, and **Narad** do not disclose "receiving data at a first node, a header, a list of at least one intermediate node to be visited on a way to the destination apparatus and classifying the data at the first node based upon an entry in the header" which has been amended in claim 1, 5, 13, 17, 25 and 30. Yet, the combinations of references **Walrand**, **Jorgensen**, and **Narad** do teach those subject matters as described in current office action. The rejection retained.

**Conclusion**

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunray Chang whose telephone number is (571) 272-3682. The examiner can normally be reached on M-F 7:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-3506.

Sunray Chang  
Patent Examiner  
Group Art Unit 2121  
Technology Center 2100  
U.S. Patent and Trademark Office



**Anthony Knight**  
**Supervisory Patent Examiner**  
**Group 3600**

April 29, 2005